

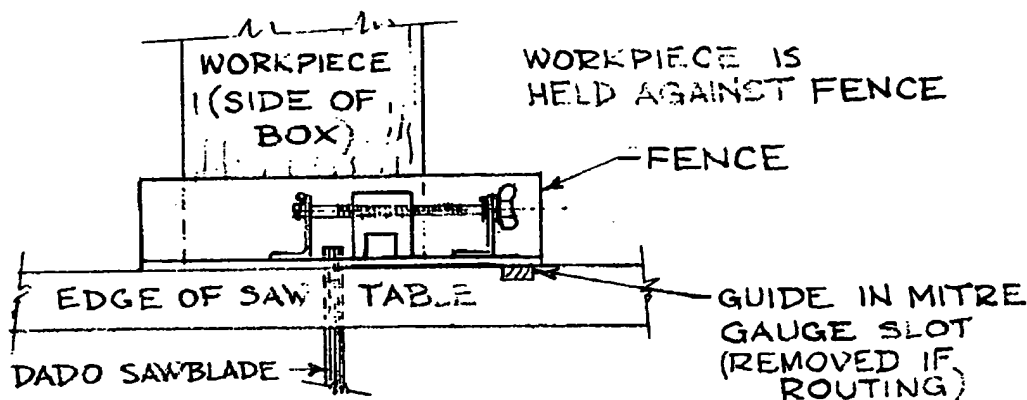
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(54) **GABARIT A JOINT ENCLENCHE A GRADUATIONS
REGLABLES**

(54) **ADJUSTABLE INCREMENTAL BOX JOINT JIG**



(57) In cutting joints at the corners of wooden boxes it is known that by cutting a slot in a side at its end and inserting the slot over a pin, (in a wooden jig), a finger's width from a slot cutter, and cutting a second slot and repeating the process on this and other sides, the resulting slots and fingers will mesh to form joints. Fine adjustment of the distance between the pin and the slot cutter is made by tapping the jig laterally with a hammer. In this invention a screw adjustment eliminates the use of a hammer and an incrementally stepped pin allows the choice of one of several widths of slot to be cut.

ABSTRACT.

In cutting joints at the corners of wooden boxes it is known that by cutting a slot in a side at its end and inserting the slot over a pin,(in a wooden jig), a finger's width from a slot cutter, and cutting a second slot and repeating the process on this and other sides, the resulting slots and fingers will mesh to form joints.Fine adjustment of the distance between the pin and the slot cutter is made by tapping the jig laterally with a hammer.

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SPECIFICATION.

This invention relates to a jig constructed of wood, plastic or metal to be used with a router or table saw when making corner joints in wooden boxes.

Existing jigs intended for use with a table saw typically consist of a base keyed to the mitre gauge slot of a table saw table, allowing the jig to be moved forwards towards the saw, and a vertical fence perpendicular to the saw having an attached pin projecting on the table in front of the fence.

In setting up the jig the pin is located a distance approximately equal to the width of a finger away from the dado sawblade by temporarily inserting a wooden packing of finger width between the pin and the saw blade, and the jig is then permanently attached to the key in the mitre gauge slot and the aforementioned packing removed. In practice it is found that this method of assembly seldom results in a finger width of the accuracy necessary for snug joints, so test pieces of wood are used in which slots are cut. The finger widths are measured with calipers reading to 0.001" and the widths adjusted by striking the jig on one side or the other laterally and trial slots cut in the scrap piece until the desired width is obtained, a laborious and uncontrolled procedure. The common practice if a finger of a different width is required is to replace a jig with another jig having a pin of the desired width.

This invention incorporates an incrementally stepped pin which can be moved longitudinally through the fence to expose the desired pin width beside the fence. This same jig can be used for several different finger widths eliminating waste of material and the time changing jigs necessary in previous practice.

DRAWINGS.

A sheet of Drawings is appended which illustrate embodiments of the invention in 3 figures - Figure 1, REAR VIEW, shows the edge of the table of the table saw, the back of the fence, the workpiece and the incrementally stepped pin passing through the pinholder and fence,

Figure 2 is a PLAN VIEW of the table saw, the jig base and fence, stepped pin, pinholder, adjusting mechanism and workpiece,

Figure 3 is a drawing of the PIN enlarged for clarity.

OPERATION.

A finger width, generally equal to the thickness of the box side is decided upon. If, for example, a 1/2" wide finger is chosen, the pin is pushed forward to be 1/2" wide at the fence, The pin is then moved laterally (by turning the wingnut) to be 1/2" from the

dado saw blade and a trial cut made in a piece of 1/2" scrap wood, by holding it against the flat face of the pin and moving the jig forward into the saw, the sawblade being set up to cut a 1/2" by 1/2" slot. After cutting the first slot the jig is pulled back and the slot in the scrap piece placed over the pin. The jig is moved forward into the saw and the second slot cut. If the finger width is found to be different from the slot width, say 0.010" wider, as determined by caliper measurement, the finger width can be made to be 0.002" less than the slot width by turning the wingnut that portion of a turn as calculated from the pitch of the screw threads that moves the pin 0.012" to the left. When the correct width is cut the jig is used to slot the ends of the first side and the side opposite to it. Before cutting the other 2 sides, a scrap piece is held against the pin and a slot cut. The piece is reversed end for end and the slot placed over the pin. The third side is placed against the scrap piece and a slot cut in it, the scrap piece removed, the first slot cut in the third side placed over the pin and the remaining slots cut in the same way as the first and second sides. The fourth side is cut in the same way as the third side.

CLAIMS.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

- 1. The incorporation of a screw thread turned by a wingnut to make fine adjustments to finger widths, and**
 - 2. The provision of an incrementally stepped pin, which when using the adjusting screw in 1.(above), allows the choice of several joint widths to be made using a single jig.**
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DRAWINGS.

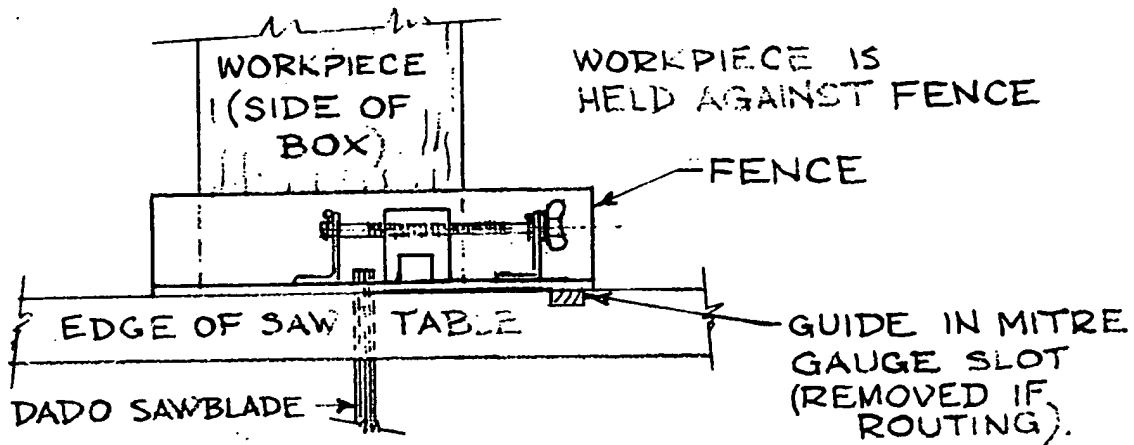


FIGURE 1. REAR VIEW.

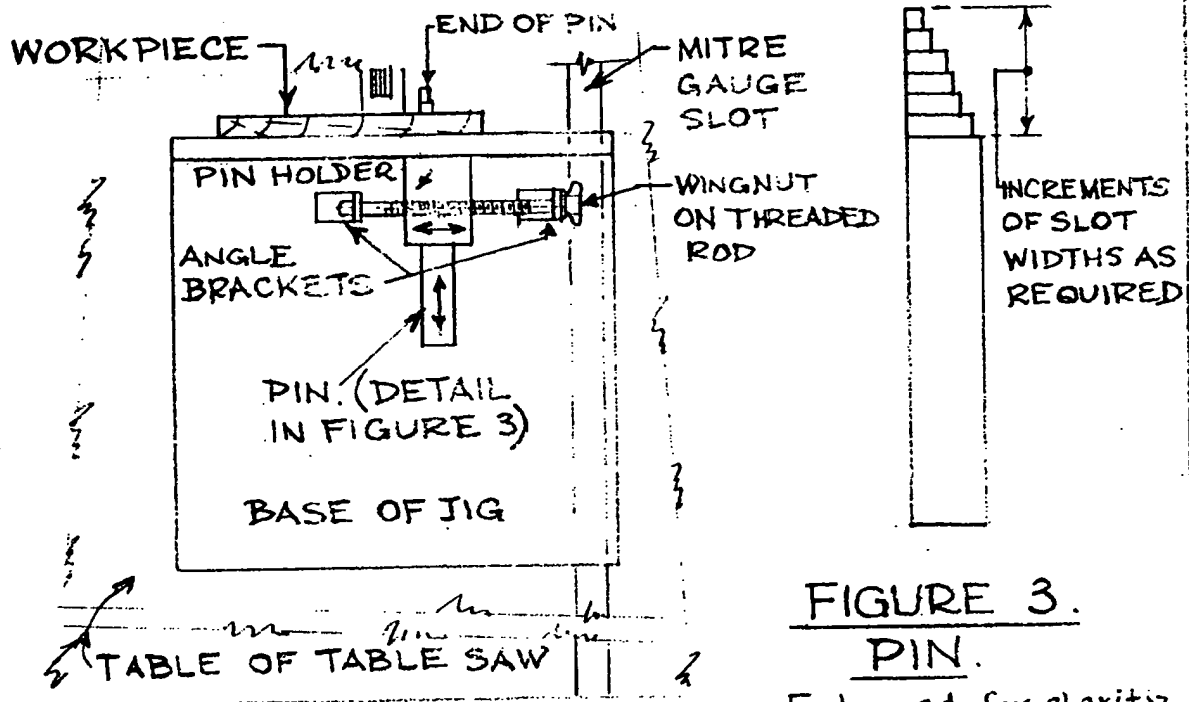


FIGURE 2. PLAN VIEW.

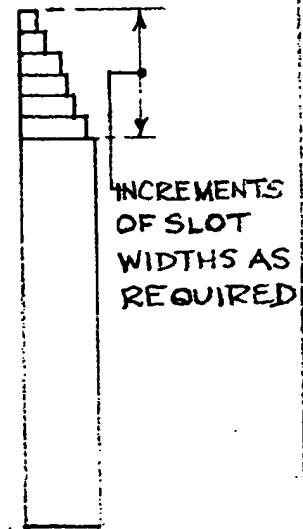


FIGURE 3.
PIN.

Enlarged for clarity,
is of square cross
section throughout.

